Track Installation for Voyager 420, 550 & 800



SAFETY INSTRUCTIONS AND WARNINGS

IMPORTANT – READ AND UNDERSTAND THESE INSTRUCTIONS. DO NOT LOSE THEM. ALSO READ OPERATING/ INSTRUCTION CHAPTER OF THIS MANUAL BEFORE INSTALLING, OPERATING OR SERVICING THIS EQUIPMENT

GENERAL

- > IMPORTANT READ THESE INSTRUCTIONS CAREFULLY OR SERIOUS INJURY MAY RESULT.
- > KEEP THESE INSTRUCTIONS AND THE KEY PROVIDED WITH THE LIFT AT ALL TIMES.
- > READ OPERATION AND MAINTENANCE INSTRUCTIONS IN THIS MANUAL BEFORE INSTALLING, OPERATING, OR SERVICING THIS EQUIPMENT.
- > An authorized contractor or installer must install Voyager ceiling lifts.
- > USE all controls and safety features only according to the rules specified in this manual. Never attempt to force a control or button on the lift.
- > DO NOT store the charger in a shower, bath or other areas with high humidity.
- DO NOT drop the patient lift or battery. Dropping the battery or lift may cause internal damage that is not easily seen. If lift is suspected to be damaged, take to an authorized technician for servicing.
- > IMPORTANT: Keep all components of the lift clean and dry, and have electrical and mechanical safety checkpoints done as instructed in the Maintenance section of this manual.
- > Replace any precautionary or instruction labels that cannot be easily read.
- > Avoid violent shock during transportation.



LIFTING WITH THE VOYAGER

- > YOUR LIFT is for transferring patients only. Do not use the lift for any other purpose.
- > ALWAYS carry out the daily checklist before using the lift.
- > Voyager ceiling lifts are intended to be used for patients within the specified weight limit indicated for the lift. Do not attempt to lift more than the weight limit indicated.
- > Before attempting to transfer, the patient must be assessed by a qualified professional.
- Voyager ceiling lifts must be used by a caregiver with proper training to work with the patient to be transferred.
- > ONLY trained and qualified caregivers should transfer a patient. DO NOT attempt to use the lift if you have not been properly trained to do so.
- > ALWAYS be prepared before attempting to transfer a patient.

FOLLOW lifting procedures outlined in this manual.

SLING USAGE

- ONLY use Sunrise slings that are designed to fit with the Voyager
- > ALWAYS refer to the Sling User Manual for instruction on fitting, care and maintenance
- > DO NOT use a sling that is not recommended for the lift.
- > NEVER use a damaged, torn or frayed sling.
- > ALWAYS place the sling around the patient according to the instructions enclosed.
- Voyager ceiling lifts are specifically designed for Sunrise Voyager ceiling rail systems, slings and accessories. Slings and accessories designed by any other manufacturer are prohibited and will void the Voyager warranty. Use only Sunrise Medical slings and accessories to maintain patient safety and product utility.
- > DO NOT use other manufacturer's slings.

DO NOT use Sunrise slings on other manufacturer's hoists.

ELECTRICAL WARNING - SHOCK PREVENTION

- DO NOT touch or use a lift with bare conductors or a damaged power cord. Electrically live equipment can electrocute a patient. If the lift or charger has any exposed or damaged wires contact your local dealer immediately.
- DO NOT cut or remove the round grounding prong from any plug. All Voyager lifts are equipped with three-prong plugs to protect from shock hazard or electrocution. Any two-prong electrical outlet must be replaced with a properly grounded three-prong outlet according to the National Electrical Code and local codes. It is the responsibility of the customer to have the work done by a qualified electrician.
- > DO NOT splash or expose electric parts of the device to water or moisture.
- > CHECK nameplate for voltage and cycle requirements. These requirements differ by country. Do not attempt to use the lift in an area that has a different voltage and cycle requirement.
- > DO NOT attempt to expose, service or repair the lift, battery or charger. If any unit is malfunctioning, contact your local dealer.
- > READ the battery and charger instructions thoroughly before using or storing them

SUNRISE MEDICAL

ELECTRICAL WARNING - INSTALLATION AND GROUNDING

- Electrical equipment must be installed and maintained in accordance with National Electrical Codes.
- > Check nameplate for voltage and cycle requirements.
- In special locations i.e. bathrooms, showers or swimming pools a supplementary earth bond must be connected at the mains supply socket. Where the Voyager Lift is supplied by a short length of flex from an adjacent power point, the green yellow connection within the flex may be deemed to constitute supplementary bonding. In some regions Local Authorities may specify an additional supplementary earth to the track. This can be taken from any earth terminal on the charger end stop.

Refer to a qualified electrician who knows the latest regulations in the installation of this equipment.

ELECTRICAL WARNING - SERVICE AND MAINTENANCE

Disconnect power cord from the charger rail stopper or switch of transformer at power supply, and unplug the battery from the lift before inspecting, adjusting or servicing the equipment. Disconnect power to equipment if it is to be left unattended or out of service.

FIRE AND EXPLOSION PREVENTION

- > Batteries may explode, leak and cause personal injury if not disposed of properly.
- Do not place or store the battery under direct sunlight or near a heat source
- Do not dispose of in fire
- Do not short the battery terminals
- Do not incinerate
- Flush with water if electrolyte (Acid) comes in contact with skin or eyes.
- > Batteries must be recycled, disposed of according to local law regulations. When returning batteries, insulate their terminals with adhesive tape, etc. Otherwise, the residual electricity in used batteries may cause fire or explosion.

PARTS AND ACCESSORIES

Always use VOYAGER replacement parts and accessories. Using other parts and accessories other than recommended by BHM/ SUNRISE could affect security and efficiency of the entire system. SUNRISE VOYAGER slings and patient lift accessories are specifically designed to be used in conjunction with BHM patient transfer aids. Sling and accessories designed by other manufactures are not to be used as a component of VOYAGER patient transfer systems.

EQUIPMENT WARNING LABELS

INSPECT all precautionary labels on the equipment. Order and replace all labels that cannot be easily read.

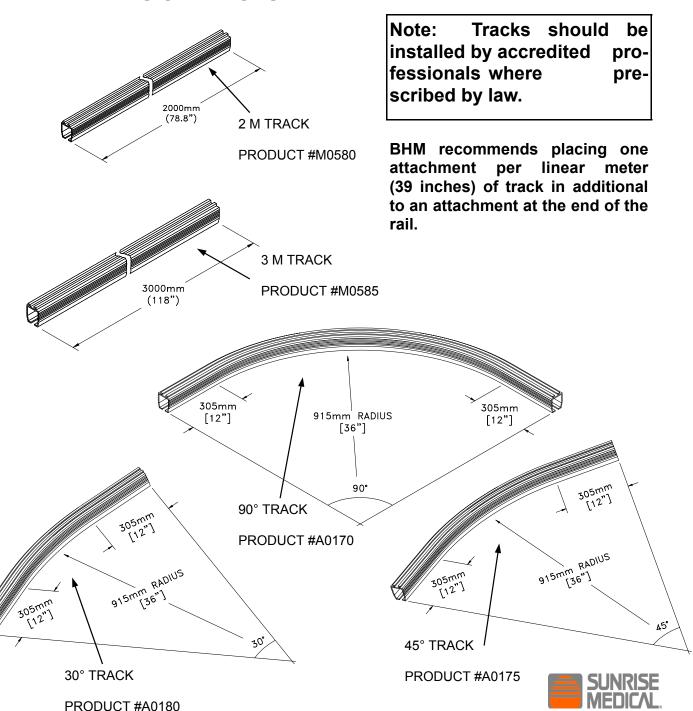


TRACK INFORMATION

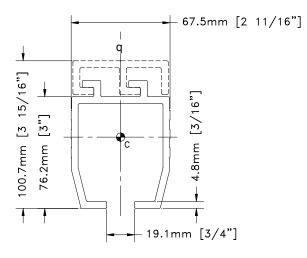
> MATERIALS USED

BHM Medical's track system, as well as it's attachment accessories, are manufactured and installed following high safety standards. BHM's tracks are made from high strength extruded aluminum and are bake paint coated to ensure a safe and aesthetically pleasing profile.

TYPES OF TRACKS AVAILABLE



TRACK SPECIFICATIONS



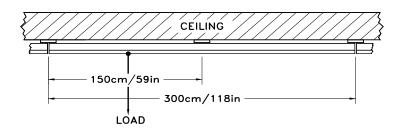
Material: 6063-T5 aluminum

I_{XX} Maximum moment of inertia: 1.08E⁶ mm⁴ / 2.59 in.⁴ Modulus of elasticity: 6.894757 MPa /10E⁷ psi

Extreme fiber distance from xx axis: 48.61 mm / 1.9141 in.

Perimeter: 554 mm / 21.814 in. Area: 1311.6 mm² / 2.033 in.²

Track load data when attached every 1.5 meter / 59



Maximum load before track failure :

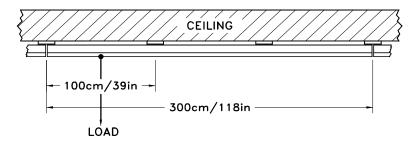
1384 kg / 3050 lbs.

Deflection at maximum load :

8.89 mm / 0.35 in.

Safe working load (safety factor of 3):
 461 kg / 1016 lbs.

Track load data when attached every 1 meter / 39.37



Maximum load before track failure :

2100 kg / 4625 lbs.

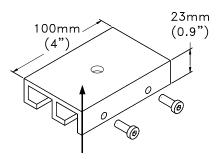
Deflection at maximum load :

3.81 mm / 0.15 in.

Safe working load (safety factor of 3): 700 kg / 1542 lbs.

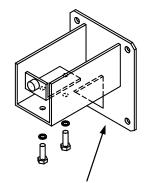


TYPES OF BRACKETS USED



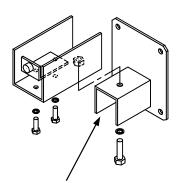
STANDARD BRACKET

PRODUCT #A0110

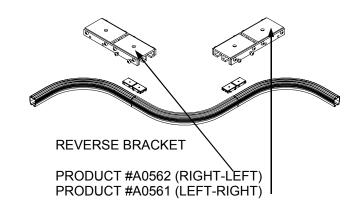


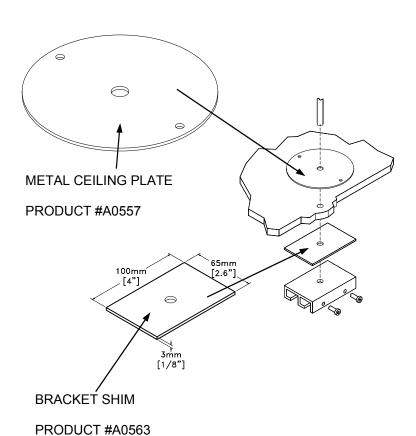
STANDARD WALL BRACKET

PRODUCT #A4900



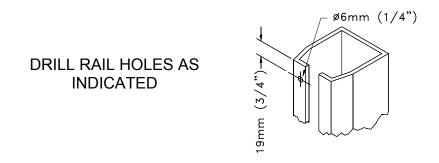
WALL BRACKET WITH PIVOT PRODUCT #A4950

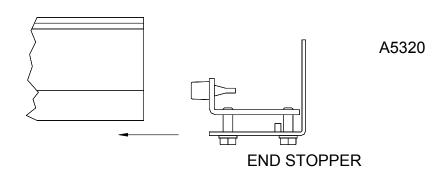


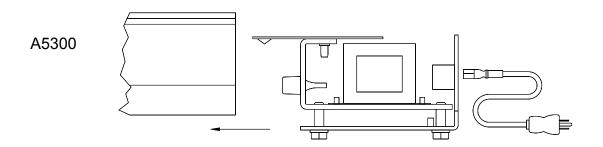




RAIL STOPPERS INSTALLATION





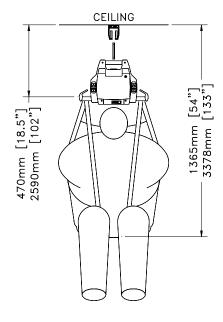


INSERT THE STOPPERS IN THE RAIL AND INSURE BOLTS ARE SNUG.

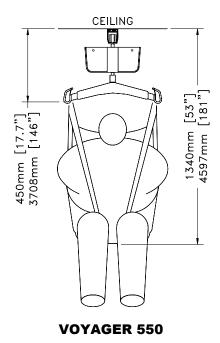
PLEASE NOTE: DO NOT OVER TIGHTEN BOLTS

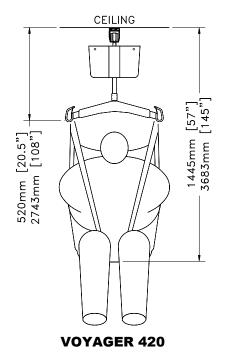


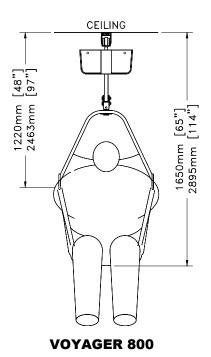
TRACK LIFT CLEARANCE



VOYAGER PORTABLE

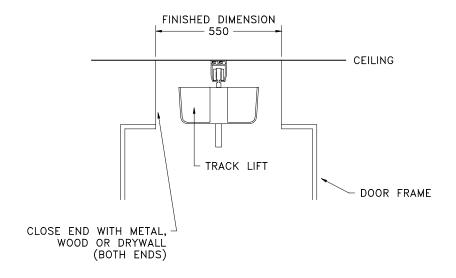


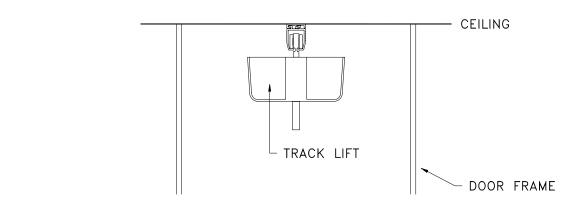


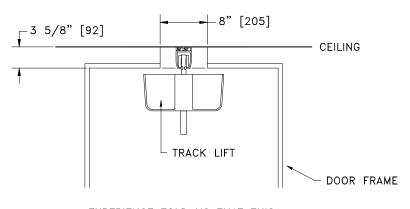




DOOR FRAME DIMENSIONS







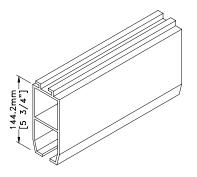
EXPERIENCE TOLD US THAT THIS SOLUTION IS NOT RECOMMENDED



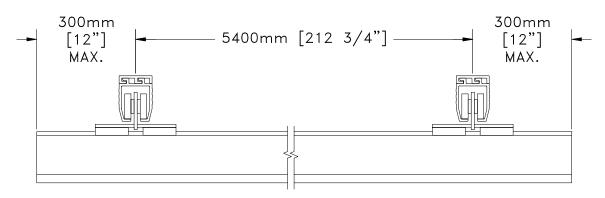
> LONG SPAN (6 METERS) (236")

PRODUCT # 201.00550

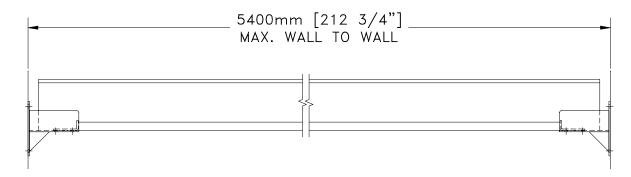
SAFE WORKING LOAD = 250Kg (550lbs) WEIGHT BY METER = 6.22Kg/m (4.1lbs/p) 6m = 37Kg (81lbs) COMPATIBLE WITH ALL VOYAGER SERIES

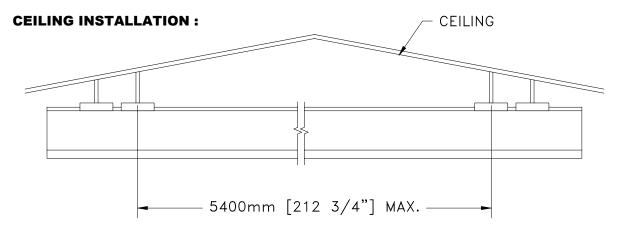


X-Y INSTALLATION:



WALL TO WALL INSTALLATION:

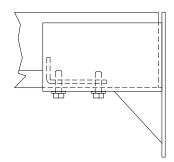




NEED A MINIMUM OF 2 RAIL ATTACHEMENTS AT BOTH ENDS

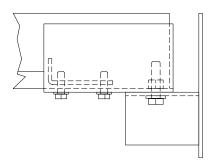


WALL BRACKET INSTALLATION



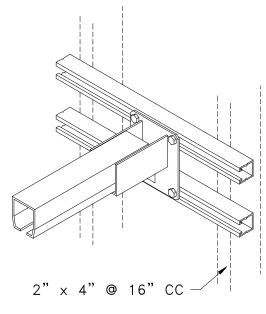
WALL BRACKET

PRODUCT #A4900

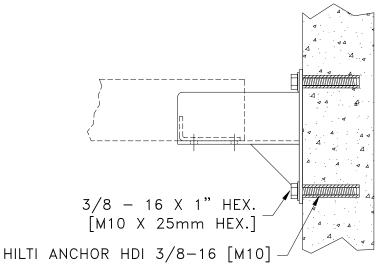


SWIVEL WALL BRACKET

PRODUCT #A4950

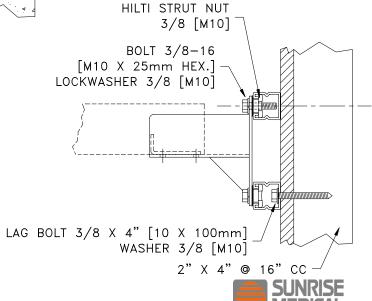


TYPICAL INSTALLATION

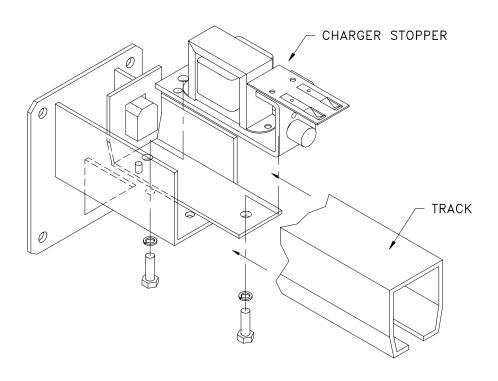


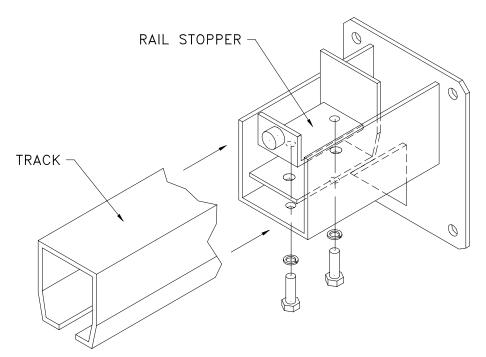
WALL BRACKET WITH CONCRETE STRUCTURE

WALL BRACKET WITH WOOD STRUCTURE NB: Must be fix on 2 studs (2 X 4)



WALL BRACKET INSTALLATION WITH CHARGER

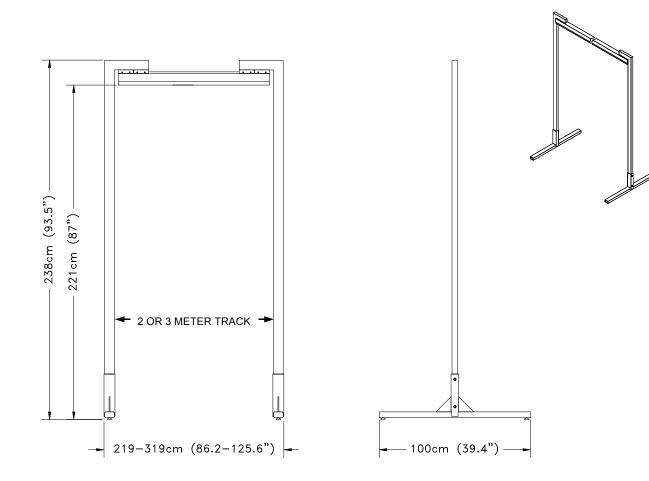






SEMI-PERMANENT RACK

Product # A9200

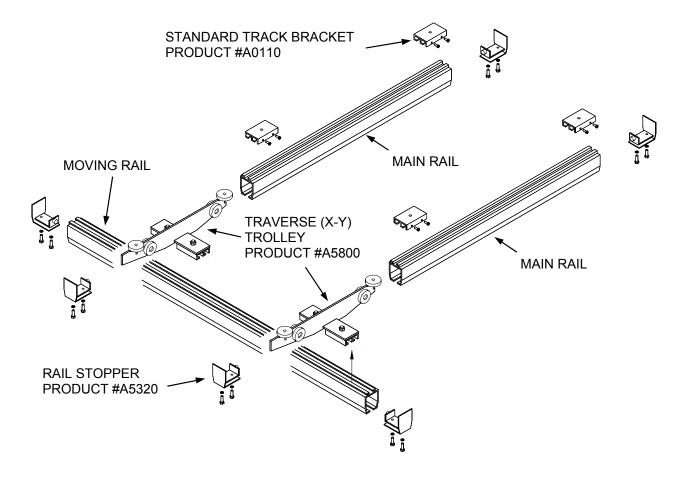


HOW TO ORDER A SEMI-PERMANENT RACK:

PART	DESCRIPTION	QTY
A9200	Semi Permanent rack	1
M0580	2 meter rail	1
or M0585	or 3 meter rail	1
A5320	Rail Stopper (only for Portable Voyager)	2
E7520	3 meter power cord (only for Voyager 420 or 550) (North American plug)	1



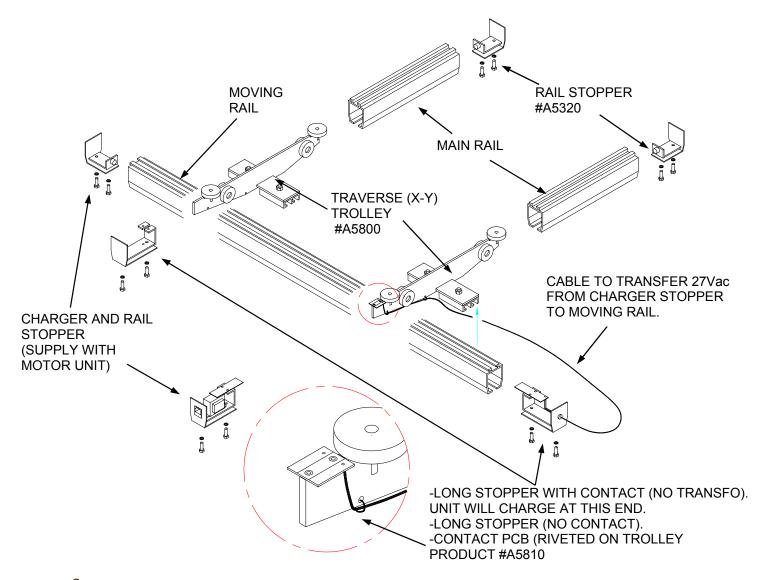
> TRAVERSE SYSTEM (X-Y) CONT'D Product # A5800



PART	DESCRIPTION	QTY
	PORTABLE VOYAGER	
A5800	Traverse system (X-Y)	1
A5320	Rail Stopper	6
M0580 or M0585	Parallel rail any length (2 or 3 meter rails – as many in a sequence as you like)	2
M0580 or M0585	2 meter traverse rail or 3 meter traverse rail *	1
A5900	Trolley	1
Voyager	Portable Voyager track lift	1



> CONTACT ASSEMBLY FOR TRAVERSE SYSTEM (X-Y) For Voyager 420, 550 Product # A5810

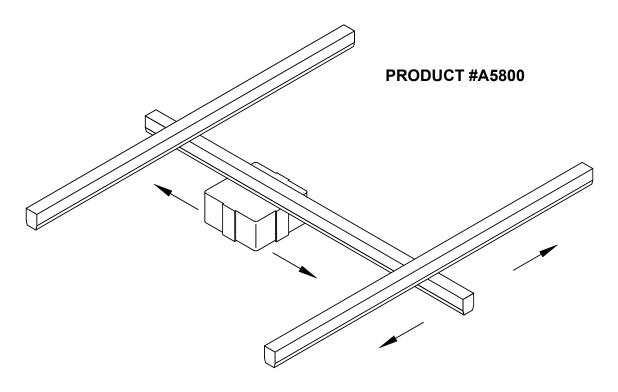


PART	DESCRIPTION	QTY
	VOYAGER 420 OR 550 OR 800	
A5800	Traverse system (X-Y)	1
A5320	Rail stopper	2
A5810	Contact assembly for Traverse system (X-Y)	1
M0580 or M0585	Parallel rail any length (2 or 3 meter rails – as many in a sequence as you like)	2
M0580 or M0585	2 meter traverse rail or 3 meter traverse rail *	1

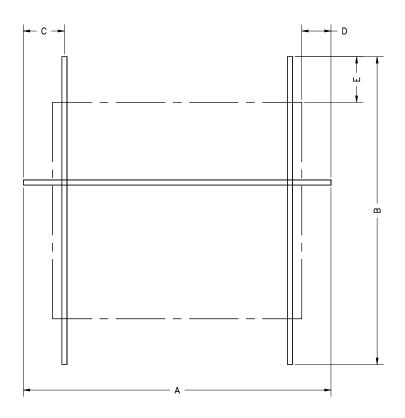
^{* =} if you need more than 3 meters, contact BHM



TRAVERSE SYSTEM (X-Y)



MAXIMUM RANGE OF MOTION FOR TRAVERSE SYSTEM



	CENTIMETRES	INCHES		
A**	300 MAX.	118		
B*	B* AS LONG AS DESIRED. AS LONG AS DESIRED.			
С	30 to 40	12.5V to 15.7		
D	D 28.5 11.	11.2		
Е	44.5	17.5		

** = IF MORE IS NEEDED... CALL BHM

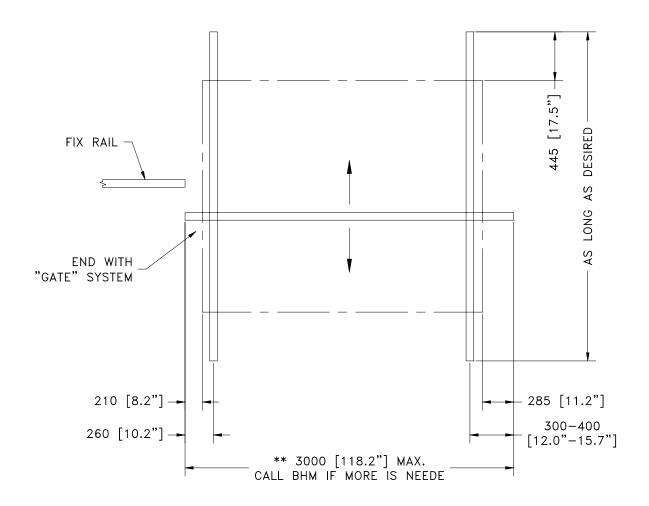


GATE FOR TRAVERSE SYSTEM

Product # 700.07500

Easy to install no modification to the rail needed. Can be used on all BHM lifting products. 700.07500 - WHAT'S INCLU-Automatic system that works without any manual activation. All mechanical system, no electric power needed. Safety feature that prevent the lift from falling in the rails aren't perfectly aligned with one another. STANDARD X-Y TROLLEY X-Y TROLLEY WITH GATE SYSTEM **ACTIVATION BRACKET**

MAXIMUM RANGE OF MOTION FOR TRAVERSE SYSTEM WITH GATE





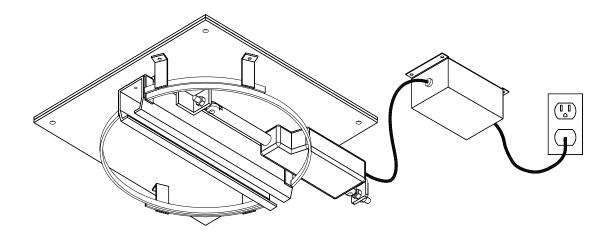
> TURNTABLE

The BHM Medical Turntable is a first class track junction system. Adding flexibility to the design, its main application is to provide access to two or more rooms while providing a continuous track path.

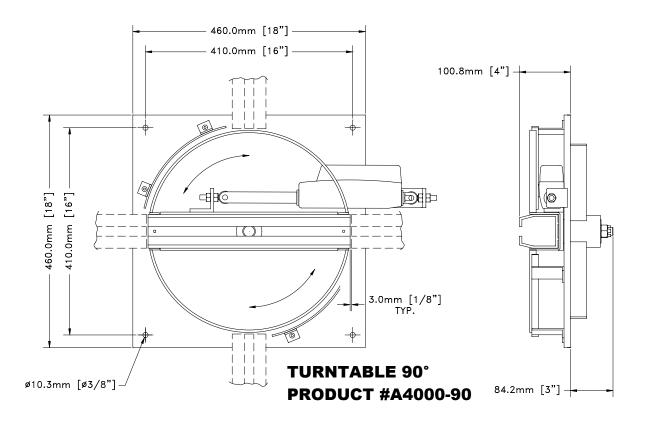
The turntable action is done by an **electric, soft and low noise actuator** mounted on the unit. The <u>turning action is commanded by pulling once on a simple cord</u>. Rotation will start, automatically come to a stop and lock at the end of its rotation, ready to turn back to its original position on demand.

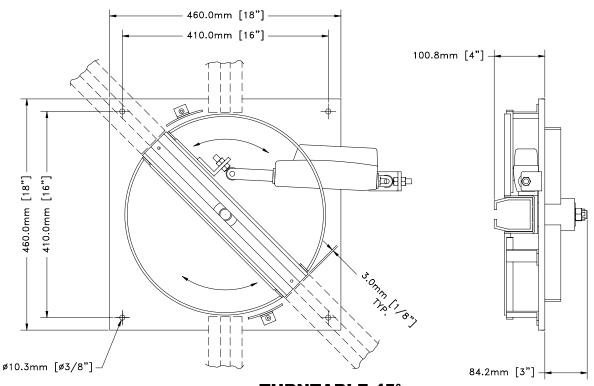
IMPORTANT FACTS TO REMEMBER ON THE TURNTABLE

- + The turntable is only available motorized
- An electrical outlet must be found close to the installation to accommodate the turntable
- + The return to charge function on our track lifts must be disconnected.
- + Re-enforcement required to install the turntable





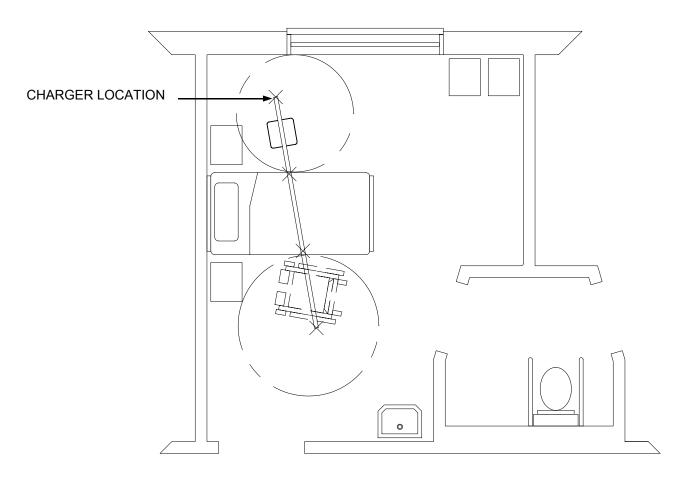




TURNTABLE 45° PRODUCT #A4000-45



INSTALLATION EXAMPLES AND WHAT TO ORDER

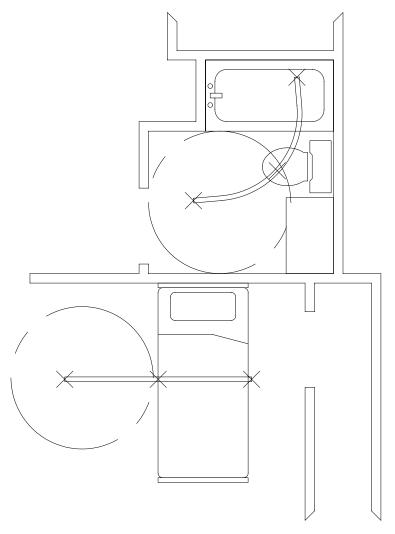


PART	DESCRIPTION	QTY
M0585	3 meter rail	1
A0110	Track bracket	4
ALB3-4FB	Voyager 420	1
or	or	
ALB2-4FB	Voyager 550	

PLEASE NOTE: HARDWARE IS EXTRA



> INSTALLATION EXAMPLES CONT'D

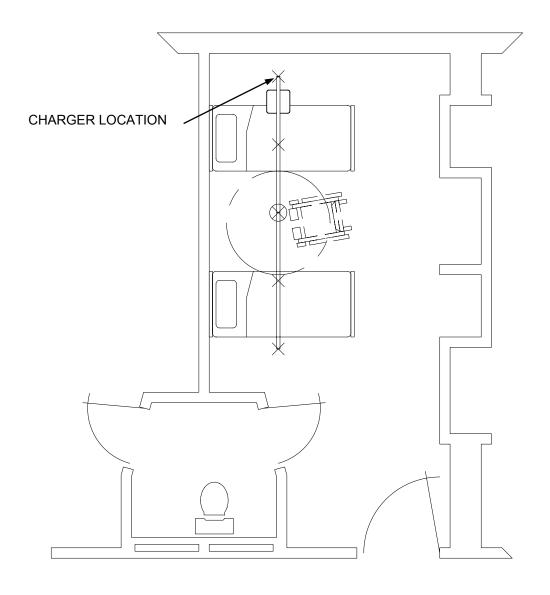


PART	DESCRIPTION	QTY
M0580	2 meter rail	
A0110	Track bracket	6
A0170	0170 90° rail	
Voyager	oyager Portable Voyager	
A5900	Standard trolley	2
A5320	End stopper	4
A8300	Arm extension (optional)	1
E0090	Handset (optional)	1
A3710	Strap extension (optional)	1

PLEASE NOTE: HARDWARE IS EXTRA



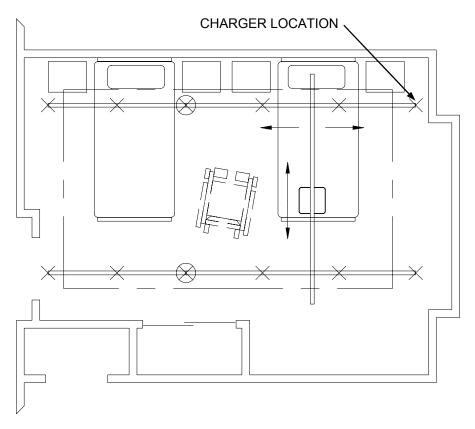
> INSTALLATION EXAMPLES CONT'D



PART	DESCRIPTION	QTY
M0580	2 meter rail	2
A0110	Track bracket	5
ALB3-4FB or ALB2-4FB	Voyager 420 or Voyager 550	1



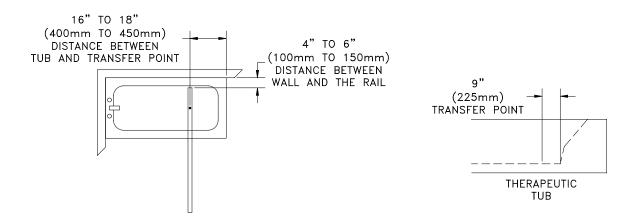
> INSTALLATION EXAMPLES CONT'D

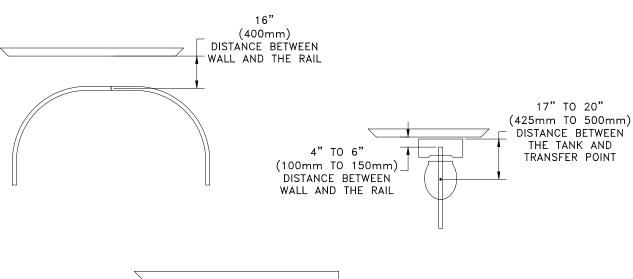


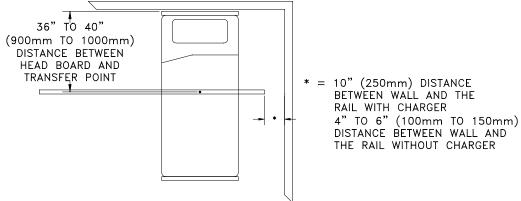
PART	DESCRIPTION	QTY
M0580	2 meter rail	2
M0585	3 meter rail	3
A0110	Track bracket	12
A5800	Traverse system (X-Y)	1
	+ FOR VOYAGER 420 OR 550	
	Voyager 420 or Voyager 550	1
A5810	Contact kit	1
A5320	End stopper	2
	+ FOR PORTABLE VOYAGER	
	Portable Voyager	1
A5900	Standard trolley	1
A5320	End stopper	6
A8300	Arm extension (optional)	1
E0090	Handset (optional)	1
A3710	Strap extension (optional)	1



> RECOMMENDED TRANSFERT LOCATION









> CURVE INSTALLATION

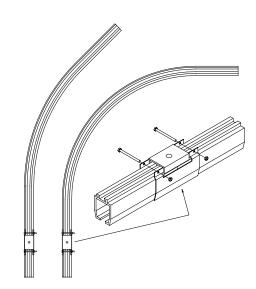
<u>PURPOSE:</u> The BHM A0590 joint kit is used to join straight rail and curve rail. Our goal is to insure the best possible alignment.

1. REQUIRED PARTS.

- ⇒ 2 union plates #M0590P
- ⇒ 2 hex. bolts M6 x 80mm #Q3235
- ⇒ 2 locknuts M6 #Q3410

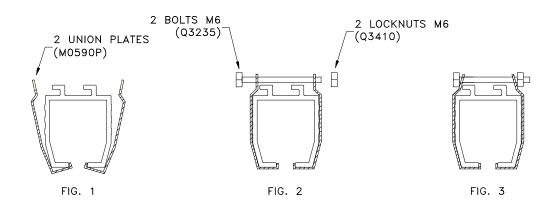
2. SUGGESTED TOOLS.

- ⇒ Plastic hammer
- ⇒ Ratchet
- ⇒ key 10mm
- ⇒ box 10mm
- ⇒ flat blade screwdriver



3. Instruction.

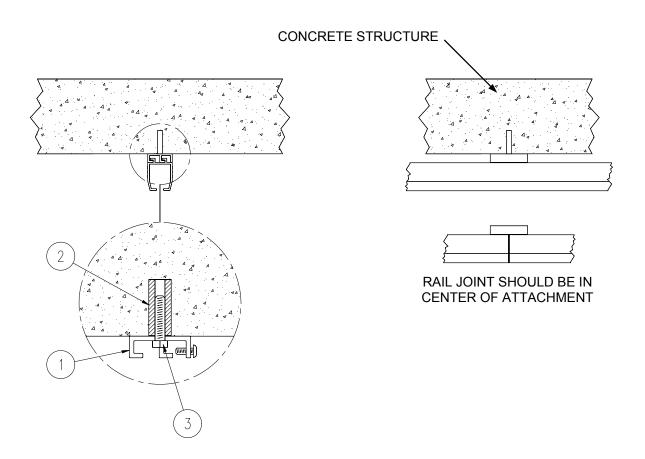
The union plates must be centered on both sides of the rail attachment. At a slight angle, insert the 2 union plates into the rail opening (fig. 1). Lift up slightly while pressing the plates together over the top of the rail. Insert the 2 M6 X 80mm bolts into the union plate holes and attach with M6 locknuts (fig. 2).



Tighten the bolts until joints are solidly aligned and secure (fig. 3). Verify that the trolley wheels turn freely and roll smoothly over the rail joint.



> STANDARD CEILING ATTACHMENT CONCRETE STRUCTURE

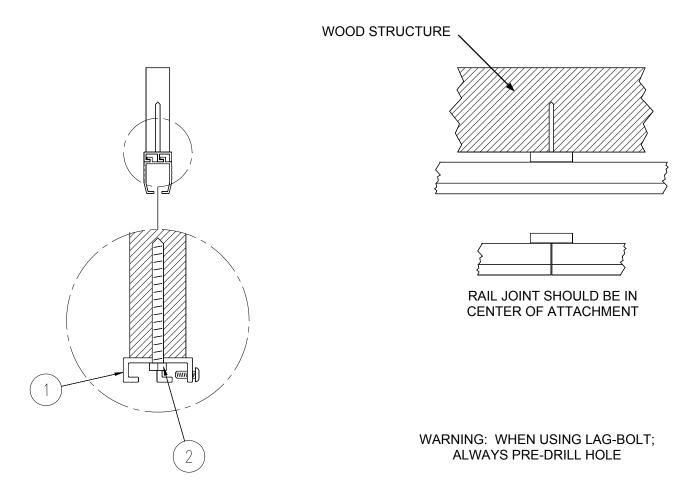


#	PART	DESCRIPTION Standard (metric)	QTY/BRACKET		MIN. ORDER
		STANDARD ATTACHMENT	STD	LATERAL	
1	A0110	Track Bracket	1	-	-
		OTHER HARDWARE			
2	Q0423 -	Hilti anchor HDI 3/8 – 16 (Hilti anchor HDI M10)	1	-	100
3	Q0350 -	3/8 – 16 x 1" hex. (M10 x 25mm hex.)	1	-	100

PLEASE NOTE: METRIC PARTS ARE NOT AVAILABLE



> STANDARD CEILING ATTACHMENT WOOD STRUCTURE

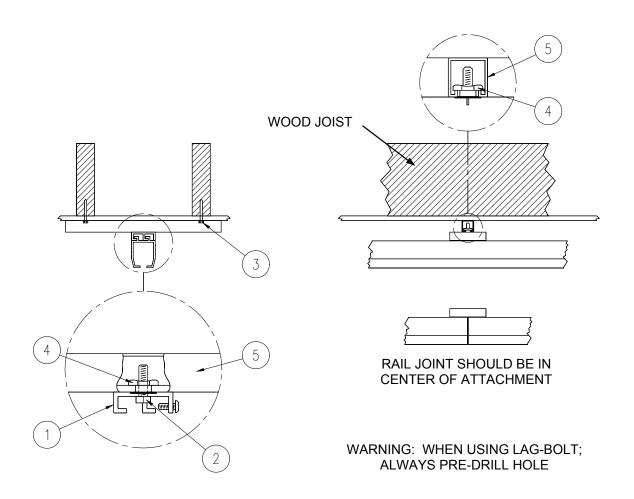


#	PART	DESCRIPTION Standard (metric)	QTY/BRACKET		MIN. ORDER
		STANDARD ATTACHMENT	STD	LATERAL	
1	A0110	Track Bracket	1	-	-
		OTHER HARDWARE			
2	Q0740 -	Lag bolt Ø3/8" x 4" (Lag bolt Ø10mm x 100mm long)	1	-	100

PLEASE NOTE: METRIC PARTS ARE NOT AVAILABLE



> STANDARD CEILING ATTACHMENT WOOD STRUCTURE - NO ACCESS TO STRUCTURE

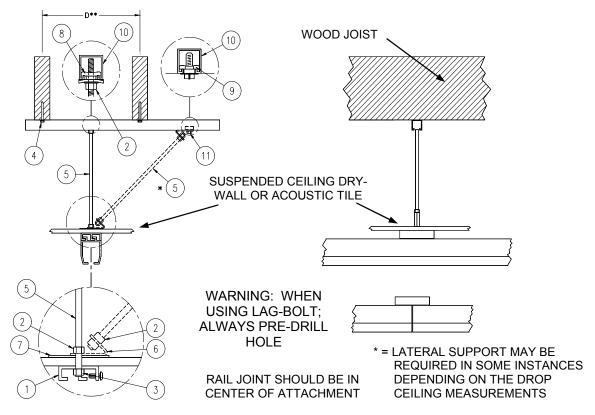


#	PART	DESCRIPTION Standard (metric) QTY/BRAC				ARI INTARRACKET	QTY/BRACKET	
		STANDARD ATTACHMENT	STD	LATERAL				
1	A0110	Track bracket	1	-	-			
		OTHER HARDWARE						
2	Q0350 -	3/8 – 16 x 1" hex. (M10 x 25mm hex.)	1	-	100			
3	Q0740 -	Lag bolt Ø3/8 x 4" (Lag boltØ10mm x 100mm long)	2	-	100			
4	Q0426 -	Hilti unistrut nut 3/8 – 16 (Hilti unistrut nut M10)	1	-	100			
5	Q1230 -	Hilti unistrut 1 5/8" x 10' (Hilti unistrut 40mm x 3m)	**	-	10			





SUSPENDED CEILING ATTACHMENT – WOOD STRUCTURE – UNISTRUT SPANNED

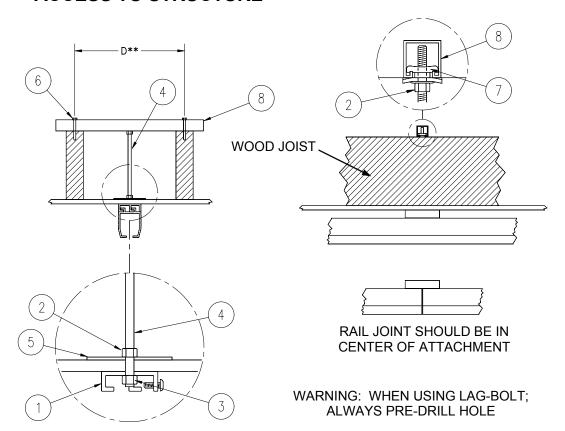


#	PART DESCRIPTION Standard (metric)	QTY/BRACKET		MIN. ORDER	
		STANDARD ATTACHMENT	STD	LATERAL	
1	A0110	Track Bracket	1	-	-
		OTHER HARDWARE			
3	Q0405 -	Nut 3/8 – 16 (Nut M10)	2	4	100
2	000.00402	Locknut stover 3/8 – 16 (Locknut stover M10)	1	-	100
4	Q0740 -	Lag bolt Ø3/8 x 4" (Lag bolt Ø10mm x 100mm long)	2	-	100
5	Q0393 - Q0394 -	Threaded rod 3/8 – 16 x 36" Threaded rod M10 x 1m long) Threaded rod 3/8 – 16 x 10' (Threaded rod M10, 3m long)	***	*** ***	15 15
6	A0553	Lateral bracket	-	2	10
7	A0557	Metal ceiling plate	1	-	100
8	Q0424 -	Suspended hilti strut nut 3/8 (Suspended hilti strut nut M10)	1	1	100
9	Q0426 -	Hilti unistrut nut 3/8 – 16 (Hilti anchor HDI M10)	-	1	100
10	Q1230 -	Hilti unistrut 1 5/8" X 10' (Hilti unistrut 40mm x 3 m)	**	-	10
11	Q0350	3/8 – 16 x 1" hex. (M10 x 25mm hex)	-	1	100

*** = LENGTH DEPENDS ON DISTANCE BETWEEN CEILING AND TOP OF STRUCTURE
** = REFER TO STEEL SPAN SPECIFICATIONS SHEET
PLEASE NOTE: METRIC PARTS ARE NOT AVAILABLE



> STANDARD CEILING ATTACHMENT – WOOD STRUCTURE – ACCESS TO STRUCTURE

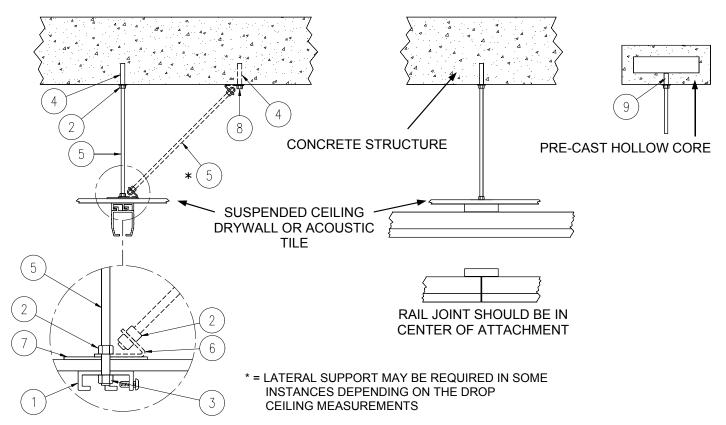


#	PART	DESCRIPTION Standard (metric)	QTY/E	QTY/BRACKET	
		STANDARD ATTACHMENT	STD	LATERAL	
1	A0110	Track Bracket	1	-	-
		OTHER HARDWARE			
2	Q0405 -	Nut 3/8 – 16 (Nut M10)	1	-	100
3	000.00402	Locknut stover 3/8 – 16 (Locknut stover M10)	1	-	100
4	Q0393 - Q0394 -	Threaded rod 3/8 – 16 x 36" (Threaded rod M10, 1m long) Threaded rod 3/8 – 16 x 10' (Threaded rod M10 x 3m long)	***	-	15 15
5	A0557	Metal ceiling plate	1	-	100
6	Q0740 -	Lag bolt Ø3/8 x 4" (Lag bolt Ø10mm x 100mm long)	2	-	100
7	Q0424 -	Suspended hilti unistrut nut 3/8 – 16 (Suspended hilti unistrut nut M10)	1		100
8	Q1230 -	Hilti unistrut 1 5/8" X 10' (Hilti unistrut 40mm x 3m)	**	-	10





SUSPENDED CEILING ATTACHMENT CONCRETE STRUCTURE

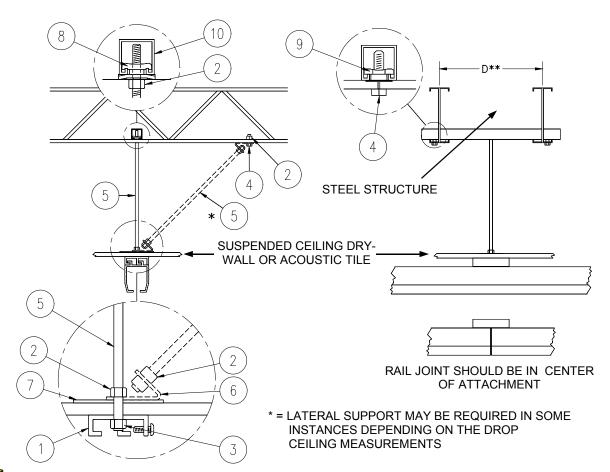


#	PART	DESCRIPTION Standard (metric)	QTY/BRACKET		MIN. ORDER		
		STANDARD ATTACHMENT	STD	LATERAL			
1	A0110	Track Bracket	1	-	-		
		OTHER HARDWARE					
2	Q0405 -	Nut 3/8 – 16 (Nut M10)	2	4	100		
3	000.00402 -	Locknut stover 3/8 – 16 (Locknut stover M10)	1	-	100		
4	Q0423 -	Hilti anchor HDI 3/8 – 16 (Hilti anchor HDI M10)	1	1	100		
5	Q0393 - Q0394 -	Threaded rod 3/8 – 16 x 36" (Threaded rod M10, 1m long) Threaded rod 3/8 – 16 x 10' (Threaded rod M10, 3m long)	*** ***	*** ***	15 15		
6	A0553	Lateral Bracket	-	2	10		
7	A0557	Metal ceiling plate	1	-	100		
8	Q0350 -	3/8 – 16 x 1" hex. (M10 x 25mm hex.)	-	1	100		
9	Q0427 -	Hilti anchor HDI-P 3/8 (Hilti anchor HDI-P M10)	1	1	100		





> SUSPENDED CEILING ATTACHMENT - STEEL STRUCTURE

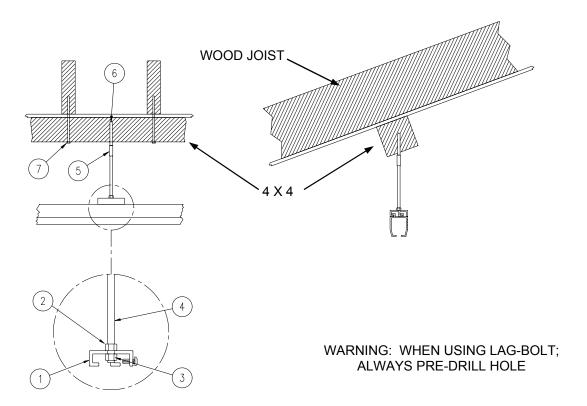


#	PART	DESCRIPTION Standard (metric)	QTY/BRACKET		MIN. ORDER	
		STANDARD ATTACHMENT	STD	LATERAL		
1	A0110	Track Bracket	1	-	-	
		OTHER HARDWARE				
2	Q0405 -	Nut 3/8 – 16 (Nut M10)	1	4	100	
3	000.00402	Locknut stover 3/8 – 16 (Locknut stover M10)	1	-	100	
4	Q0350 -	3/8 – 16 x 1" hex. (M10 x 25mm hex.)	-	1	100	
5	Q0393 - Q0394 -	Threaded rod 3/8 – 16 x 36" (Threaded rod M10, 1m long) Threaded rod 3/8 – 16 x 10' (Threaded rod M10 x 3m long)	*** ***	***	15 15	
6	A0553	Lateral Bracket	-	2	10	
7	A0557	Metal ceiling plate	1	-	100	
8	Q0424 -	Suspended hilti unistrut nut 3/8 – 16 (Suspended hilti unistrut nut M10)	1	1	100	
9	Q0426 -	Hilti unistrut nut 3/8 – 16 (Hilti unistrut nut M10)	-	1	100	
10	Q1230 -	Hilti unistrut 1 5/8" X 10' (Hilti unistrut 40mm x 3m)	**	-	10	

*** = LENGTH DEPENDS ON DISTANCE BETWEEN CEILING AND TOP OF STRUCTURE ** = REFER TO STEEL SPAN SPECIFICATIONS SHEET



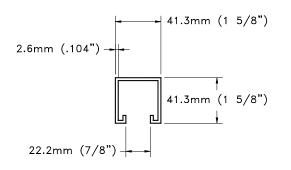
> CATHEDRAL CEILING



#	PART	DESCRIPTION Standard (metric)	QTY/BRACKET		MIN. ORDER		
		STANDARD ATTACHMENT	STD	LATERAL			
1	A0110	Track Bracket	1	-	-		
		OTHER HARDWARE					
2	Q0405 -	Nut 3/8 – 16 (Nut M10)	1	-	100		
3	000.00402	Locknut stover 3/8 – 16 (Locknut stover M10)	1	-	100		
4	Q0393 - Q0394 -	Threaded rod 3/8 – 16 x 36" (Threaded rod M10, 1m long) Threaded rod 3/8 – 16 x 10' (Threaded rod M10 x 3m long)	*** ***	- -	15 15		
5		Coupling nut 3/8 – 16 (Coupling nut M10)	1	-	100		
6		Dowel screw 3/8 x 4" (Dowel screw M10 x 100mm)	1	-	100		
7	-	Lag bolt Ø3/8 x (minimum 2" in the structure) (Lag bolt Ø10mm x (minimum 50mm in the structure)	1	-	100		



> RE-ENFORCEMENT – HILTI UNISTRUT SPECIFICATIONS

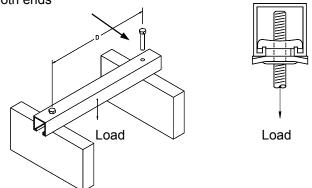


The maximum allowable loads specified below should be at least two (2) times the **« safe working load »** of the lifting device.

Span fixed on supports at both ends

SIMPLE SPAN:

Distance « D » between supports	Max. allowable load at span centre	Max. allowable load at 1/3 of « D »		
24 in. (610mm)	431 kg (950 lbs.)	647 kg (1425 lbs.)		
36 in. (914 mm)	290 kg (640 lbs.)	436 kg (960 lbs.)		



BACK TO BACK SPAN:

Distance « D »	Max. allowable	Max. allowable	Distance « J »
between supports	load at span centre	load at 1/3 of « D »	between span jointing
48 in. (1250 mm)	590 kg (1300 lbs.)	885 kg (1950 lbs.)	16 in. (406mm)
72 in. (1830 mm)	395 kg (870 lbs.)	592 kg (1305 lbs.)	24 inc. (610 mm)

